

HQ CIVIL WORKS ENGINEERING NOTES - Vol. III No. 2 - 5 November 1997 (continued)

APPENDIX A NOTES FROM DETS-PPM SES MEETING 7-9 October 1997

Following are the high lights of the discussions that took place in the DETS/PPM meeting in New York City during 7-8 October:

1. **Virtual Division:** Mr. Tom King from CENAD briefed on their efforts toward achieving the goal set by their previous commander MG Hunter that "A user should be able to sit down at any computer in the division and immediately begin to engage in productive work." CENAD has made excellent progress in creating a seamless coordinated information resources system which is consistent throughout the division. The system is in place and a standard procedure for administering the system so it remains consistent for years to come is in routing for internal coordination. CENAD hopes to maintain a well connected, highly accessible information technology system based on the principles of standardization, simplification and flexibility to implement virtual team concept thereby making their region seamless to deliver products and services tailored to the needs of their demanding customers. This effort mainly focuses on information exchange not CADD data and files. For CADD they are monitoring the test division efforts.

2. **Mentoring Program and Changing Corps Culture:** Mrs. Kristine Allaman briefed on CENWD and CESWD efforts in Mentoring future leaders of the Corps and changing Corps culture. Basic focus of their programs is on formal and informal contracts, cross training, targeted training based on career objectives of participants. Participants are solicited from the region's pool of GS11-13 employees and selections made by a committee. Committee makes assignment of mentors and monitors progress bi-annually. Karen Northup in Seattle district maintains a web site on this effort. The biggest challenge in executing this program is funding. Mrs. Allaman also talked about their initiatives on changing Corps culture. CENWD has identified what the culture is and what we want it to be to be effective in today's and future environment. She encouraged other MSC's to share with her and others on results their initiatives. Mrs. Allaman stated that Corps marriage with the Army is one thing that sets us apart from other federal agencies because command and control culture is necessary for execution.

3. **Reinventing PM:** Mr. Fred Caver briefed on the new ER 5-1-11 on program and project management. The draft of this new ER will be sent out for comments within the next two weeks. Inspiration on the concept and philosophy in developing the ER came from the Chief. ER will be ten pages long. Basic premise of the new draft is based on the principles that the PM is central business processor in the Corps of Engineers, Project and Program Management is integral, resources are related and projects mean all work. PM will be extension of the commander and is the door to the Corps focused on time, cost and quality. This new ER will provide guidance and policy for PMPs, Project Review Boards, Fiscal Responsibility and Management to the base Line. The Chief will personally meet with the division commanders on the intent of the ER so the principles of project and program management are consistently applied throughout the Corps. ER will be a Christmas present

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from the Chief.

4. **Reinvention Center:** Mr. Jim Kelley gave an excellent briefing on Installation Support and Public Works Service Centers Concept. Mr. Kelley emphasized increasing Corps relevance to the Army through providing enhanced service using the PWSC concept. This is the most sensible strategy that is based on developing a most efficient hybrid organization composed of installation, USACE and Private sector people to provide reimbursable support to the installations. It allows commanders to maintain control over the process and cost that are two most important items for them. This will certainly aid in bringing significant revenues from Army's \$5.7 billion O&M program, improve relationships and increase Corps' relevance to the Army. Service to other agencies can also be provided by the PWSC through inter-service agreements. The performance of the center is proposed to be rated by the DPW, intermediately rated by the installation commander and senior rated by the district commander. Mr. Kelley also said that he has developed a standard job description for Commercial Activities Manager and a training course on installation support and is available to anyone in the Corps who needs it.

5. **Skills Inventory and Expert Registry:** Mr. Luis Ruiz from CESAD briefed on this initiative under the test division program to develop a skills directory on a web page that will allow easy identification of technical personnel and skills their region. Full deployment is anticipated by December 1997. From this directory CESAD plans to develop a list of regional experts. All division offices are encouraged to initiate similar effort after SAD fine tunes their process on or before December. HQUSACE will use the regional expert list to develop a list of national experts. Efforts are being initiated to develop procedures and criteria to develop a registry of national experts by CEMP-E and CECW-E.

6. **ISO 9000:** Mr. Steve Stockton provided an update on ISO 9000 initiative. He described this effort to be like getting a P.E. registration for the organization. The principles of ISO 9000 focus on procedures, work instructions, quality manuals and records that we use in our business process. These are undoubtedly paramount in providing quality service to our customers. But the key question is should we consider getting certified? The cost of certification ranges between \$100-\$125K per function and \$20K for annual maintenance per function. Mr. Stockton discussed the concept of self certification and laid out the strategy for implementation for the engineering and construction functions. Many key briefings are planned for deciding prior to providing policy letter from the Chief endorsing the ISO registration as part of the Vision implementation.

7. **Strategic Planning:** Mr. Dawson briefed on CESPD efforts in strategic planning. Much of the focus is on meeting mission goals and outreach programs. CESPD is emphasizing on congressional outreach, establishing marketing mechanism, proactive inter agency alliances, identifications of account managers and strategic customers, establishing alliances with the A-E community, customer service, maintaining and inventorying technical skills, standardize centralized data base, holistic team

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approach and outreach training. Most other divisions are engineering similar efforts for their regions.

8. Design Construction Evaluations and Quality Management Reviews: Mr. Stockton talked about HQ efforts in combining two ERs that address DCE's and QMR's. Mr. Stockton's concept of making divisions central to the key QA role and diverting HQ focus on global and strategic issues received overwhelming support from the present DETS and PPMS. His concept is based on holding MSC's accountable for quality assurance and HQ providing oversight. This will result in MSC's having an aggressive QA program and HQ performing oversight role through sampling certain projects and districts in the MSC region consistent with allocated resources. A lessons learned data base and after action mechanism will be instituted as an integral part of the newly engineered policy.

9. E&C Consolidation and Challenges: Mr. Singh informed the participants on E&C consolidation at HQ and the new organization. He also discussed the new challenges and concerns related to \$20 million reduction in P&D income, reduced S&A income of \$30 million and emphasized Mr. Cheung's credo of "hunkering down and most importantly revolutionizing effectiveness". Some good ideas from Mr. Baker of Seattle District on improving management of warrantee work were shared and discussed with the participants in addition to emphasizing need for frugality, mission growth, improving our score card on management of time and cost growth.

10. FUSRAP: This DOE program will be transferred to the Corps after the President signs the proposed bill. Mr. Caver briefed on the management of this program. He stated that the program will be managed by the Directorate of Civil Works with technical assistance from Directorate of Military Programs and executed through the geographic districts. Geographic district that do not have the necessary technical expertise will be encouraged to seek it from other Corps offices.

11. Next meeting will be in February 1998 at Ft Leonard Wood and will focus on MSC of the future, Marketing, ER5-7-1, Energy Savings Performance Contracting and customer service training.

In general it was a good meeting. There was excellent exchange of information and good ideas on many initiatives all MSC's are struggling with. I believe these meetings greatly help in building a corporate team, common thinking and consistent application of new policies and procedures and collaborative problem solving. CENAD and CENAN did an excellent job in arranging this meeting. My sincere thanks go to Mr. Oliva and many other champions of New York district. I enjoyed the opportunity to participate.

ESSAYONS!!! Mohan Singh

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**APPENDIX B
MEMORANDUM FROM DETS-PPM SES MEETING
7-9 October 1997**

MEMORANDUM FOR THE RECORD

SUBJECT: DETS-PPM SES meeting, New York

DATE: 7-9 October 1997

1. Meeting attendees includes Messieurs. Stockton, Caver, Singh from Headquarters; Ms. Allaman from NWD, Mr. Herndon from MVD, Messieurs. Oliva and Browning from NAD, Mr. Burns from Huntsville, Messieurs. Postlewaite and Osborne from SAD, and the undersigned from SPD.
2. Mr. Oliva opened the meeting with a discussion of administrative details followed by an introduction of Mr. Tom King, the Information Management Office Chief, NAD. Tom explained the NAD approach to standardization of IMO processes, hardware, and software. The approach will result in central databases allowing real time monitoring of information for upward reporting, in lieu of data calls. The expense of this undertaking was systematically programmed into the NAD budget, and in the operating budgets of the districts. Expense is a frequent concern of individuals involved in this type of decision making. Mr. King pointed out that standardization always makes sense, because keeping current in the IMO business is a necessity and somewhat costly in the absence of standardization. The SAD participants commented that their regional village was similar in approach. The NAD standard is the Microsoft Office suite, similar to SAD except SAD uses lotus notes. Mr. King acquainted us with Moore's law-technology doubles each 18 months and the cost decreases by 50 %. He stressed the importance of establishing a wide area network as a first step in standardization.
3. Ms. Allaman discussed mentoring programs in different parts of our organization. Mr. Robinson was part of the effort but was unable to attend due to an injury(back). Ms. Allaman described the SWD mentoring program which includes the setting aside of some key positions for cross training. These positions are in the SWD headquarters at the GS 11-13 level. The candidates for these positions are interviewed through the SRI Gallup process, which isn't universally supported by our group. We discussed the need to allow those interested in a management career to receive some early training in required skills, and the need to reward those who pursue a technical career as well. There is room for both types in the Corps. Mr. Herndon explained the need to mentor in the blue collar ranks as well as the white collar ranks. He discussed findings of a recent EEO suit filed against the Corps, which may have been prevented had we had such mentoring programs in place.
4. Mr. Caver discussed the reinventing of Project Management. He gave the names of the individuals redrafting the PM Engineer regulation- Jerry Savage, Bill Augustine, Craig Roberts, and David Lee. The effort has been quick hitting. The final version of the ER is expected to be about 10

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pages. It is not prescriptive-there is no discussion of roles and responsibilities. The 92 ER was about as good as we could do at the time. The new version is stronger in that Project Management is described as the central business process in the Corps of Engineers. The "project" is defined as all work done by the Corps, since resource decisions are made on items not traditionally thought of as projects. There are 3 major subdivisions of the ER-Goals and objectives, principles, and requirements. In the goals and objectives part, it is stated that the DDEPM is an extension of the Commander. The PM is the person responsible for delivery of the project and will be held accountable. If the mission were sized right, the PM should be capable of doing almost everything technically required to deliver the project. The technical manager as we have known him or her is intended to disappear-the duplication between the technical manager (being phased out) and the Project manager should thus be eliminated. The Project manager is intended to be the one door to the Corps. The principles embodied in the new ER are centralized management, horizontal integration, and performance measurement. The requirements include the preparation of a project management plan, there must be a project review board, and we will manage cost and schedule to a baseline. This will reflect cost and time growth, and may be a key management indicator. The Chief will personally meet with the Division Commanders when the ER is issued, expected to be near the Holiday season in December, 1997.

5. Mr. Jim Kelley of the installation support reinvention center in Fort Worth challenged us with some major paradigm shifting that will be necessary for us to be a major player in the \$6 Billion installation support business. He suggested we had made a mistake by always meeting with the DEH or the base civil engineer instead of the garrison commander. The garrison commander is our customer. He emphasized that the Corps is the only major command in the Army with facilities as their business. Privatization is big business. There are only 12 installations left in Forces Command. Commercial activities are taking away work from the Corps-14,000 FTE are involved in this activity. All of installation utilities are being divested. Our Corps culture needs to be changed; i.e. The culture of "We are the Corps of Engineers-the work will come to us." His huge paradigm shift related to creating a mini district at the site of major installations. For example, the Fort Worth District has a 58 person mini district at the Fort Hood complex. Fort Hood is conveniently located near Belton Lake, a civil works project, which allows for more economies. The providing of O&MA Army funds this year for co-locating a space at an Army installation provides the opportunity to seed the installation mini district, which Mr. Kelley refers to as the Public Works Service Center. This center will provide all services that the customer desires- contracting, legal, etc. Jim also agreed to provide the Prospect course that he teaches to a group of individuals interested in marketing this concept. His presentation was excellent and available for those who haven't heard it. Mr. Kelley can be reached at the reinvention center in Fort Worth.

6. Mr. Luis Ruiz from the South Atlantic Division presented the Division skills inventory underway in SAD. The inventory programming is being done by SAD, and the database is being maintained in

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the Portland District. This database will not be available for other Divisions until December, and only includes data for the engineering function. The development of a database template and related software for other functions should be cheaper than the development costs of engineering function. Part of the maintaining technical competence initiative will be to create this inventory for the technical functions on a nationwide basis. Follow on assessments of our needed supplemental skills will be a necessary follow on.

7. Mr. Steve Stockton of the Civil Works Directorate in the Headquarters discussed the ISO 9000 efforts on-going in the Corps of Engineers. His presentation tied into the Corps of Engineers vision and applied to the strategy of revolutionizing effectiveness. He described the ISO 9000 process as the equivalent of obtaining the Professional engineering registration for the entire organization. ISO 9000 has a very low level of standardization and isn't overly prescriptive. The goal eventually is to have consistent processes throughout the organization. Mr. Stockton stated that the current state of the Corps is that we produce random acts of quality. ISO 9000 should be the vehicle to allow us to produce quality products on a consistent basis. The group agreed that Engineer regulations were out of date, and did not foster the preparation of consistently high quality products. There was some discussion regarding the cost of ISO 9000 and whether or not a district had to complete the process. Although going through the process is beneficial, most felt that a commitment to the process should include certification. This would put us on an equal basis with over 12000 engineering firms who are ISO 9000 certified. The initial cost of ISO 9000 for some of the Corps districts was about 200 thousand dollars. Districts seeking certification today should spend less since there are now Corps prototypes available to use. Logistics Management Institute is compiling lessons learned from the Kansas City and Portland District certification process. Mr. Stockton will continue to keep the group apprised of efforts in this area.

8. The undersigned discussed the maintaining of technical competence within the framework of the South Pacific Division business plan which is under development. The first step in maintaining technical competence is to inventory existing skills-find out what we have available. Many in the Corps have felt for some time that the technical career path ends at too low a grade, while the management career path is virtually unlimited. Many of the Divisions have identified regional experts, who are able to advance to the GS 13 level, still, this is a much lower grade than managers. Mr. Dawson explained that the SPD fully recognized that our future work will be much different than our past work. Large projects demand a certain type of expertise. Most of our large military and civil works projects were predictable. Budget and time overruns could be recovered given the nature of the project. Today, we are faced with Operations and Maintenance Army and Air Force work which requires flexible, knowledgeable staffs that we currently do not have. The technical projects we do require quick hitting, rapid response. We need to develop this expertise. Other goals of the business plan were discussed. Regarding mission execution, SPD supports the metrics associated with the military program. Part of the goal here is to award 100 % of the program, to

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meet the customers' ready to advertise schedule, to minimize cost and time growth, and to prepare the concept plans by August one year prior to budget submissions. The civil works goals include making planning deadlines so that sponsors get their projects authorized in the 98 WRDA.

Regarding HTRW, we want to continue our excellent record of executing 150% of the program by preparing to use funds programmed but unusable in other Divisions. Organizational goals were also presented. The need here is district restructuring, although the need is not readily apparent to the SPD Districts since we are blessed with an abundant workload. There are a number of other goals, however the most pressing need appears to be the standardization of ADP or IMO systems. This must be done in the environment of CEFMS and PROMIS implementation, currently underway.

9. There were several issues discussed at the end of the meeting. Steve Stockton discussed the design construction reviews being conducted annually by the Headquarters, and wanted to know if this didn't fit in the MSC quality assurance role. The consensus was that this effort was appropriate for the MSC's to accomplish. Mr. Singh passed out a list of Mr. Cheung's concerns. Paramount among the concerns are decreasing funds for design, and holding the construction S&A rates at current levels. This situation is not likely to improve, so Mr. Cheung encourages everyone to hunker down. Mr. Caver discussed the FUSRAP program. This program is part of civil works and is funded as a Corps of Engineers activity. We are expected to deliver on this program, most notably on 8 sites which we asked DOE to cease activities on, since our getting the program appeared to be inevitable. This was done. It is now up to us, primarily St. Louis and Buffalo Districts, to get these sites cleaned up.

10. New York District provided several briefings on their major programs. New York is a busy district and enjoys work in all Corps programs. They are successfully managing the nationwide transient housing project of the Air Force. Their civil works program is balanced between environment and economic development, and many of the nation's Superfund sites are located in the Northeast corridor. A major problem they are trying to resolve is the disposal of dredge material in New York Harbor. Currently, some of the material is being disposed of in Utah at substantial cost. Alternatives are being considered which would significantly decrease disposal costs. The District provided a tour of the harbor, which concluded the meeting. Our next meeting will be at Fort Leonard Wood during the ENFORCE Conference.

Dawson

APPENDIX C
MEMORANDUM FROM
MSC CHIEFS OF ENGINEERING AND PLANNING MEETING
20-23 October 1997

CEMP-EC (1110) 28 October 1997

MEMORANDUM FOR THE RECORD

**SUBJECT: Major Subordinate Command (MSC) Chiefs of Engineering and Planning Meeting,
20-23 October 1997**

1. Attendees:

- | | |
|-------------------------------|--------------------------------|
| a. Steven Stockton, CECW-E | m. David Barber, CESWD-ETE-T |
| b. Jack Farless, CESP-ET-E | n. Chris Glanz, CELRD-GL-E-P |
| c. James Seals, CELRO-OR-ET-Q | o. James Ward, CEMVD-ET-ET |
| d. James Nakasone, CEPOD-ET-T | p. Pat Tucker, CEMVD-ET-EG |
| e. Paul Migue, CEPOD-ET-P | q. Robert Jones, CELRD-GL-E-EQ |
| f. Thomas Davis, CENPD-ET-PP | r. John Kerkowski, CENAD-ET-E |
| g. Ted Kell, CEMRD-ET-E | s. John Madison, CEMVD-ET-ET |
| h. Harlan Karbs, CESWD-ET-E | t. Jack Hummel, CESAD-ET-EC |
| i. Gregory Baer, CESAD-ET-E | u. Rubin Mooney, CESP-ET-P |
| j. Frank McGovern, CESAD-ET-P | v. Ed Sing, CESP-ET-EW |
| k. Samuel Tosi, CENAD-ET-P | w. K "Charlie" Cheung, CEMP-EC |
| l. John Burn, CECW-PE | |

2. Discussions.

A. Quality of Engineering and Planning Work.

Quality of work is dependent upon our people and process. We need well educated, trained, experienced and motivated people. We have numerous challenges in recruiting qualified engineers and scientists, providing them with interesting and rewarding assignments, laying out effective training programs to enhance skills, and leadership to inspire and motivate people to give their talents and energy to the maximum extent for the mission. We must make sure that our process is well established so that our people can provide quality work on time within budget.

LTG Ballard gave us the road map to pursue: These virtues Revolutionize Effectiveness, Mission Growth and Invest in people. We will embed in the development of excellence in people in

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terms of competency and dedication to our organizational vision and the strategic plans. He told us "To achieve our vision. . . We must dramatically transform our approach to our customers, business and processes. Our efforts must be coordinated, unified and holistic. The time for half-hearted incremental change is past. Success will come from a carefully sculpted, aggressive plan."

I was shocked and dismayed to learn from Sheila Sheimberg of Life Science that according to her surveys of numerous large organizations like ours, she found that they are severely under-utilizing their most expensive and valuable resource -- their people. When asked, "How much of you, the total person, including your intelligence and initiative, does this organization access and use?" She received the following average:

- Executive - 50% - Supervisors - 40%
- Managers - 28% - Employees - 10%

The potential already exists untapped, within current large organizations. It is up to us who are in leadership and management positions to offer a way to release this pent up energy and talent.

As we move into the 21st Century where the computer will continue to serve as the hub of business process and high technology development will abound, we must learn to work effectively and skillfully with fragmented workgroups. Virtual design concept must be refined, practiced and expanded.

I believe we are making progress but as LTG Ballard has challenged us, we need to put "full court press" on ourselves and on our people and on our organization to overcome countless challenges.

We have numerous imperfections and voids in the process. Many of them are external to our organization but many of them are within our reach to "fix" them. We have formidable challenges in Military Construction design and construction due to the imperfections in the project formulation process. Our military MACOM's and installations are inadequately resourced (less than 60% of their needs) to do proper Master Planning, environmental baseline surveys, utility update surveys, etc., in addition to constant change in their mission requirements. Our engineers, scientists and project managers encounter enormous challenges in terms of cost of design, delay in contract formulation and contract reviews and awards. Our leadership quality and management skills become of paramount importance in execution to overcome these deficiencies. We have to ask our people to give their "extra" effort to meet the quality design and cost requirements within demanding time constraints.

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Our teamwork within the organization and among our MSC's and districts is not broken, but it needs a great deal of "fixing". We still have pockets of functional isolations and turf battles. We do not cooperate as well as we should among our districts. We still don't have "one-door-to-the-Corps" concept embraced by many of our districts and other field organizations.

b. ISO 9000.

Steve Stockton made a fine presentation on ISO 9000. He outlined ISO 9000 in the following manner:

- ISO 9000 is a "family" of business standards which describes internationally recognized quality management systems.

- It is a foundation for implementing quality management improvements and managing a business to continually improve and become more competitive.

- The requirements are general and not prescriptive. It does not require a "standard system", but does require a system that meets the standard.

- Basic Principles - Required Documentation

- | | |
|---------------------------|----------------------|
| 1) Say what you do | 1) Quality Manual |
| 2) Do what you say | 2) Procedures |
| 3) Record what you did | 3) Work Instructions |
| 4) Check the results | 4) Records |
| 5) Act on the differences | |

- ISO 9001 - Engineering and Design

- ISO 9002 - Construction Management

- The 20-ISO 9001 Elements.

1) Management Responsibility
Test Equipment

11) Control of Inspection, Measuring and

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|---|---------------------------------------|
| 2) Quality System | 12) Inspection and Test Status |
| 3) Contract Review | 13) Control of Nonconforming Product |
| 4) Design Control | 14) Corrective and Preventive Action |
| 5) Document and Data Control | 15) Handling, Storage, . . . Delivery |
| 6) Purchasing | 16) Control of Quality Records |
| 7) Control of Customer-Supplied Product | 17) Internal Quality Audits |
| 8) Product Identification | 18) Training |
| 9) Process Control | 19) Servicing |
| 10) Inspection and Testing | 20) Statistical Techniques |

- ISO 9000 - USACE Districts

- 1) Louisville District - 9001 - Mar 97 - Certified
- 2) Portland District - 9001 - Aug 97 - Certified
- 3) Savannah District - 9001 - 2nd Qtr 98
- 4) Kansas City District - 9001 - 2nd Qtr 98

- Other Interested Districts

- | | |
|------------------------|------------------------|
| 1) Sacramento District | 4) Huntsville District |
| 2) Baltimore District | 5) Galveston District |
| 3) Omaha District | 6) Ft. Worth District |

- Lessons Learned by Louisville District

1) Benefits

- Process, Product, or Service Improvements.
- Reduced rework and better documented lost effort.
- Greatly improved documentation in the area of “contract” with our customer. Helps define and fulfill expectations.
- Better communication with customers.
- Increased operational efficiency and better use of our resources.

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- Controllable cost growth has continued to decline over the past five years.
- Design cost has also been reduced during the past five quarters.
- Improved construction management services to customer.
- A system which considers and act on areas needing improvement in services.
- Improved feedback from customers.

2) Cost for Implementation

- Engineering Division - \$350K
- Construction Division - \$ 350K
- Registrar Contract - \$50K (Engr=\$25K; Const=\$25K)
- Annual Maintenance - \$40K (Engr=\$20K; Const=\$40K)

3) Cheung's Dilemma

-- While our total program remains healthy, our incomes to execute the program have been reduced significantly. Our military P&D and S&A incomes have gone down by millions of dollars Corps wide.

-- Any funding for ISO 9000 effort for the future will be almost impossible under the present circumstances. Our military customers may not be receptive to funding this effort.

-- However, we may be able to fund limited ISO 14000 (environment) activities through our reimbursable customers such as EPA and DOE.

c. Quality Assurance (QA) Initiatives by MSC's.

All MSC representatives made fine presentations of their innovative QA initiatives.

Quality management is a very serious business for all of us. We need to update our skills, network among our experts, cooperate and partner with our customers, users and functional service providers more effectively and efficiently. We need to pursue responsibility, authority,

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accountability and liability with renewed energy and enthusiasm.

Presently, our controllable cost growth for FY97 is 4.5% and time growth is 12.8%. Considering the MILCON contract amount of \$1.7 billion, this is an additional cost burden of \$76.5M to our customers. The controllable time growth is 12.8% over and beyond what we promised to our customers. We need to pursue quality of our work to reduce cost burden and timely completion of our work.

Our customers have relentlessly reminded us that we cost too much and we take too much time to deliver our projects. I salute our MSC champions for their spirit and initiatives to improve quality of their work in spite of many formidable challenges and frustrating circumstances.

3. Cheung's Observations and Comments.

- a. Quality of our work is not broken, but it needs constant and continuous attention and efforts to improve quality and to enhance responsiveness of our people, reduce and eliminate low value added activities in the process as well as partner and network better with our customers and decision makers. Thus, we can mutually "fix" the imperfections, flaws and voids in the process and the system.
- b. Our challenge becomes more formidable due to the reduction of our incomes. However, we must appreciate the fact that our national leaders give us the good marks. We need to work harder and smarter to earn this praise.
- c. Design and Construction Evaluations (DCE) and Quality Management Reviews (QMR).

The present Design and Construction Evaluation efforts have mixed reception and perception by MSC's, however, there are too many design and construction mishaps and irregularities to support overall reduction of this effort. Since the technical staff of MSC's have been reduced dramatically, it is more appropriate to continue on with this effort by combining the selected staff from HQ's, MSC's (where available) and districts to pursue this effort with certain modifications/adjustments.

As we execute more HTRW remediation cost-plus contracts, we need to ensure that our cost effective quality assurance and contract administration and surveillance efforts are conducted in the field. I believe cost-plus contracts nation wide may exceed a billion dollars a year in the near future.

Our DCE team must include a member from Environmental Division and experts in

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cost-plus contracts to be responsive to our reimbursable customers.

We also need to consider combining QMRs with DCEs to reduce cost and streamline our present DCE process.

We will further review and coordinate with concerned staff and decision makers to address the expanded scope and process as well as enhancement of quality of our work in meeting customer expectations and needs.

d. We receive many accolades from our Congressional decision makers as well as other national leaders. They say when compared with other agencies, we are the best. They highlight our strengths in performing inherent government functions in executing the work through contractors. They recognize the quality service/surveillance we provide in the following areas.

Selection of relevant and cost effective technology.

Cost estimation of the “right” technology.

Development of scope of work.

Development of independent government cost estimates for engineering/planning.

Negotiation of A-E contracts.

Quality Assurance of contractor’s engineering/planning work.

Development of appropriate/cost effective contracts.

Development of independent government cost estimates for construction contracts.

Negotiation of construction/environmental remediation contract IAW, the TRUTH-IN-NEGOTIATION ACT and FAR.

Administration of contracts.

Coordination with other Federal and local regulators and decision makers.

Conducting partnering sessions.

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Providing Quality Assurance surveillance during construction.

Making partial/and final payment.

Resolving disputes and claims.

e. I am encouraged by the recent trends in pursuit of reimbursable work. EPA recently gave us additional \$150M reimbursable work in FY97, the Congressional decision makers and the President are asking the Corps to do more in HTRW remediation work for Department of Energy. Defense Logistic Agency is asking the Corps to design and construct almost \$100M POL facilities, and many more in Force Protection, Seismic Assessment and Energy Conservation.

f. While we tighten our belt to be more frugal and efficient, and more proficient in all aspects of technology, we must recognize our military and civilian champions at all levels of the organization who are fiercely committed to our mission and selfless public service. It is their commitment and creditable performance that will guarantee our institutional continuity and will also bring additional missions and work to the Corps!!

Essayons,

KISUK CHEUNG, P.E.
Chief, Engineering and Construction Division
Directorate of Military Programs

HQ CIVIL WORKS ENGINEERING NOTES - Vol. III No. 2 - 5 November 1997 (continued)

**APPENDIX D
CORPS OF ENGINEERS BOARD OF DIRECTORS MEETING
28 October 1997**

CECPG

30 October 1997

MEMORANDUM FOR RECORD

SUBJECT: BOARD OF DIRECTORS MEETING ON 28 OCTOBER 1997

1. On 28 October, 1997, LTG Ballard addressed the first working meeting of the USACE Board of Directors (BOD). The meeting began at approximately 1100 and concluded at approximately 1700. Attending the meeting were LTG Ballard, MG Genetti, all USACE Division Commanders (or designated representatives), Mr. Donald Herndon, Ms. Kristine Allaman, Dr. Ed Link, designated representatives from the Emerging Leaders Group, and other USACE staff. The Chief addressed the BOD at the opening of the meeting and again at the conclusion.

2. LTG Ballard's opening comments focused on the following:

- a. The Corps faces serious fiscal and organizational challenges.
- b. Chief's expectation that the BOD will be an integral part of the process of change associated with implementation of the Vision.
- c. Regarding the Charter Mission of the Board of Directors.
 1. BOD will review test Division/District proposals for implementation.
 2. The BOD will consider optimum distribution of work assignments in cases where petitioned by a FOA or HQUSACE element.
 3. Both of these missions are integral to creating the Corps of the future.
 4. May modify the charter of the BOD to include other assignments and additional members.
- d. Commander's Intent on the Guiding Philosophy of the BOD
 1. Two basic principles that relate to the charter mission.
 2. When considering proposals for implementation in the test Divisions will need for Directors to be bold and aggressive in the pursuit of constructive change.

HQ CIVIL WORKS ENGINEERING NOTES - Vol. III No. 2 - 5 November 1997 (continued)

APPENDIX D - Corps of Engineers Board of Directors Meeting - 28 October 1997 (continued)

3. When considering requests for distribution of work assignments need for the BOD to exhibit a bias towards having the geographic District take the lead for execution. Management or customer relations could potentially originate in any Corps element that serves to bring in new work.

4. Whenever there is a legitimate need for technical execution to be brokered outside the geographic District due to a lack of the required expertise (FUSRAP) this type of arrangement is acceptable (Virtual Corps, One Door to the Corps) but the preference should be for work to be performed by the geographic District.

e. Change in Corporate Culture

1. We could have called this a quarterly Division Commanders meeting but we are looking for a change in corporate culture.

2. Will use the BOD to bring all the major players together.

3. Plan to use the BOD as a “corporate think tank.”

4. Need for BOD to look at the entire organization and make recommendations that are based on what is best for the whole Corps.

f. Emerging Leader Involvement

1. The BOD will also serve as a vehicle to involve our Emerging Leaders in meaningful work supporting Corps reorganization.

2. The experience will benefit them and will also provide our leadership with their insight and perspective.

3. We saw at the Senior Leaders Conference that this is a group that has a considerable amount of energy and ideas. Let’s take that enthusiasm and put it to work.

3. LTG Ballard’s closing comments focused on the following:

a. Quality Assurance: “Need to get off the dime on this issue.” The Chief directed the BOD to be prepared to present him with a recommendation on implementation of a QA system by the next quarterly BOD meeting.

b. Account Manager Concept: The Chief regards this effort as a “work in progress” indicating that we need to perform an inventory of our customers and determine who we want to

HQ CIVIL WORKS ENGINEERING NOTES - Vol. III No. 2 - 5 November 1997 (continued)

APPENDIX D - Corps of Engineers Board of Directors Meeting - 28 October 1997 (continued)

have as a customer.

c. Military Real Estate: The Chief's comments centered on his assertion that the Real Estate mission (RE) "belongs" to the Divisions. He indicated that the discretion of the Division Commander could be used to determine the optimum placement of RE personnel within the Division. The Chief did not see this as a matter to be discussed by the BOD or as a matter that he needed to be directly involved in. However, if a Division Commander were to make a major realignment such as transferring all Division RE personnel to Division HQ he would expect to be consulted prior to execution. LTG Ballard also described his presumption that his Commanders would "always keep him informed" regarding actions taken under their command. The Chief commented that the "profit center mentality" that has been characteristic of District operations should now be shifted to the Division level and that Divisions will be held accountable for their activities.

d. Team Awards: The Chief commented that, "We are an organization of teams and that we all need support from others to get the job done." The Chief also commented that team awards would be more meaningful if performed at a local level. The Chief directed the BOD to consider this action a "due-out" and directed that it be resolved by the next SLC.

e. Warranties: Legal and contract issues notwithstanding the Chief believes that a mechanism must be put in place "to insure that the customer gets what he wants." The Chief indicated that a concept that embraces warranties needs to be developed that could be implemented by District and Division Commanders as they see fit. The Chief directed the BOD to consider this issue a "due-out" to be worked and prepared for a decision by the next BOD meeting.

f. Web Pages: The Chief indicated serious concern with what he sees as the unconstrained growth of USACE WWW pages and the costs associated with them. The Chief directed that without approval at the level of the MSC no additional USACE WWW pages should be created until a comprehensive CEIM review of the subject has been completed. His guidance to the Division Commanders on this topic was, "If it doesn't make sense, kill it." **(TASKER: CEIM - Prepare a list of all USACE WWW pages including the cost, rationale, approving official, and source of funds. S: 15 Dec.)**

4. All taskers are assigned and monitored by the Chief of Staff. Coordinate all taskers through that office and send all input through the C/S.

FOR THE COMMANDER:

(Original Signed)
ROBERT M. FERNANDEZ
COL, EN
Chief, Commander's Planning Group

APENDIX E
PROGRAM AND PROJECT MANAGEMENT
DRAFT ENGINEER REGULATION (ER)

CEMP/CECW

31 October 1997

MEMORANDUM FOR COMMANDERS/DIRECTORS, MSC, LABS AND FOA

SUBJECT: Program and Project Management Draft Engineer Regulation (ER)

1. Provided for your review and comment is a **draft** of a new regulation that underscores the U.S. Army Corps of Engineers philosophy on program and project management. The governing guidance for project management, issued as ER 5-7-1 (FR) in 1992, is being replaced with more flexible guidance that is far less prescriptive, and is more enabling in providing a strengthened corporate commitment to delivering projects to our customers. This regulation is a critical step forward from our past approaches to project delivery, strengthening the accountability for both project and program performance by incorporating all of our activities under the central focus of the project management business process.
2. To provide centralized accountability for program performance, all Corps work will be managed through the Programs and Project Management system. Our focus must be on measuring achievement of program results and not just activities and processes to demonstrate performance. Efficient program management allows us to effectively share resources among all Corps activities. The heart of this new regulation is the strengthened controls of the project manager in the project management business process. In keeping with Corps philosophy, we will have only one manager, the Project Manager, who serves as an extension of the District Commander, through the Deputy District Engineer for Programs and Project Management, in all program and project related matters. In dealing with our partners, customers, the Administration or the Congress, we must speak with a unified corporate voice.
3. Division Commanders are to consolidate all field comments, providing assessments of impacts from both the Major Subordinate Command and District perspective. Commanders are encouraged to share the content of this regulation with customers and to invite their participation into this process. Messrs. William Brown in CEMP and Fred Caver in CECW are the respective program POC's. Please submit your comments to them by 21 November. Your personal attention is invited to this as the Chief has stated that he will be speaking to you personally as we are finalizing this guidance.

Encl

\\SIGNED\\
RUSSELL L. FUHRMAN
Major General, USA
Director of Civil Works

\\SIGNED\\
MILTON HUNTER
Major General, USA
Director of Military Programs

HQ CIVIL WORKS ENGINEERING NOTES - Vol. III No. 2 - 5 November 1997 (continued)

APPENDIX E - PROGRAM and PROJECT MANAGEMENT DRAFT ENGINEER REGULATION (ER) (continued)

CEMP/CECW

31 Oct 97

SUBJECT: Program and Project Management Draft Engineer Regulation (ER)

DISTRIBUTION:

COMMANDER,

U.S. ARMY ENGINEER DIVISION, GREAT LAKES AND OHIO RIVER

U.S. ARMY ENGINEER DIVISION, MISSISSIPPI VALLEY

U.S. ARMY ENGINEER DIVISION, NORTHWESTERN

U.S. ARMY ENGINEER DIVISION, NORTH ATLANTIC

U.S. ARMY ENGINEER DIVISION, PACIFIC OCEAN

U.S. ARMY ENGINEER DIVISION, SOUTH ATLANTIC

U.S. ARMY ENGINEER DIVISION, SOUTH PACIFIC

U.S. ARMY ENGINEER DIVISION, SOUTHWESTERN

U.S. ARMY ENGINEERING AND SUPPORT CENTER, HUNTSVILLE

U.S. ARMY TRANSATLANTIC PROGRAMS CENTER

COMMANDER/DIRECTOR,

U.S. ARMY TOPOGRAPHIC ENGINEERING CENTER

U.S. ARMY COLD REGIONS RESEARCH AND ENGINEERING LABORATORY

U.S. ARMY CONSTRUCTION ENGINEERING RESEARCH LABORATORIES

U.S. ARMY ENGINEER WATERWAYS EXPERIMENT STATION

U.S. ARMY CENTER FOR PUBLIC WORKS

U.S. ARMY HUMPHREYS ENGINEER CENTER SUPPORT ACTIVITY

U.S. ARMY MARINE DESIGN CENTER

U.S. ARMY CORPS OF ENGINEERS WATER RESOURCES SUPPORT CENTER

CF:

COMMANDER,

U.S. ARMY ENGINEER DISTRICT, ALASKA

U.S. ARMY ENGINEER DISTRICT, ALBUQUERQUE

U.S. ARMY ENGINEER DISTRICT, BALTIMORE

U.S. ARMY ENGINEER DISTRICT, BUFFALO

U.S. ARMY ENGINEER DISTRICT, CHARLESTON

U.S. ARMY ENGINEER DISTRICT, CHICAGO

U.S. ARMY ENGINEER DISTRICT, DETROIT

U.S. ARMY ENGINEER DISTRICT, EUROPE

U.S. ARMY ENGINEER DISTRICT, FAR EAST

U.S. ARMY ENGINEER DISTRICT, FORT WORTH

U.S. ARMY ENGINEER DISTRICT, GALVESTON

HQ CIVIL WORKS ENGINEERING NOTES - Vol. III No. 2 - 5 November 1997 (continued)

**APPENDIX E - PROGRAM and PROJECT MANAGEMENT DRAFT ENGINEER
REGULATION (ER) (continued)**

CEMP/CECW

31 Oct 97

SUBJECT: Program and Project Management Draft Engineer Regulation (ER)

CF: (CONT)

U.S. ARMY ENGINEER DISTRICT, HONOLULU
U.S. ARMY ENGINEER DISTRICT, HUNTINGTON
U.S. ARMY ENGINEER DISTRICT, JACKSONVILLE
U.S. ARMY ENGINEER DISTRICT, JAPAN
U.S. ARMY ENGINEER DISTRICT, KANSAS CITY
U.S. ARMY ENGINEER DISTRICT, LITTLE ROCK
U.S. ARMY ENGINEER DISTRICT, LOS ANGELES
U.S. ARMY ENGINEER DISTRICT, LOUISVILLE
U.S. ARMY ENGINEER DISTRICT, MEMPHIS
U.S. ARMY ENGINEER DISTRICT, MOBILE
U.S. ARMY ENGINEER DISTRICT, NASHVILLE
U.S. ARMY ENGINEER DISTRICT, NEW ENGLAND
U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
U.S. ARMY ENGINEER DISTRICT, NEW YORK
U.S. ARMY ENGINEER DISTRICT, NORFOLK
U.S. ARMY ENGINEER DISTRICT, OMAHA
U.S. ARMY ENGINEER DISTRICT, PHILADELPHIA
U.S. ARMY ENGINEER DISTRICT, PITTSBURGH
U.S. ARMY ENGINEER DISTRICT, PORTLAND
U.S. ARMY ENGINEER DISTRICT, ROCK ISLAND
U.S. ARMY ENGINEER DISTRICT, ST. LOUIS
U.S. ARMY ENGINEER DISTRICT, ST. PAUL
U.S. ARMY ENGINEER DISTRICT, SACRAMENTO
U.S. ARMY ENGINEER DISTRICT, SAN FRANCISCO
U.S. ARMY ENGINEER DISTRICT, SAVANNAH
U.S. ARMY ENGINEER DISTRICT, SEATTLE
U.S. ARMY ENGINEER DISTRICT, TULSA
U.S. ARMY ENGINEER DISTRICT, VICKSBURG
U.S. ARMY ENGINEER DISTRICT, WALLA WALLA
U.S. ARMY ENGINEER DISTRICT, WILMINGTON

COMMANDER,
GREAT LAKES REGIONAL HEADQUARTERS
OHIO RIVER REGIONAL HEADQUARTERS
MISSOURI RIVER REGIONAL HEADQUARTERS

HQ CIVIL WORKS ENGINEERING NOTES - Vol. III No. 2 - 5 November 1997 (continued)

**APPENDIX E - PROGRAM and PROJECT MANAGEMENT DRAFT ENGINEER
REGULATION (ER) (continued)**

CEMP/CECW

31 Oct 97

SUBJECT: Program and Project Management Draft Engineer Regulation (ER)

CF: (CONT)

NORTH PACIFIC REGIONAL HEADQUARTERS

CEMP-ZA

CEMP-ZB

CEMP-E

CEMP-M

CEMP-R

CECW-ZA

CECW-ZB

CECW-E

CECW-P

CECW-I

CECW-A

CECW-O

CEIM-ZA

CERM-ZA

CECC-ZA

CEPR-ZA

CERE-ZA

CERD-ZA

CECPG

CEIG (ATTN: LTC C. EVANS)

CEIM-IV (ATTN: L. PANNELL)

CERM-M (ATTN: H. BROWN)

CEAO

CESO

HQ CIVIL WORKS ENGINEERING NOTES - Vol. III No. 2 - 5 November 1997 (continued)

**APPENDIX E - PROGRAM and PROJECT MANAGEMENT DRAFT ENGINEER
REGULATION (ER) (continued)**

CEMP/CECW
DEPARTMENT OF THE ARMY
U.S. Army Corps of Engineers
Washington, D.C. 20314-1000

ER 5-1-11

Regulation
No. ER 5-1-11

31 December 1997**

Management
PROGRAM AND PROJECT MANAGEMENT

1. **Purpose.** This engineer regulation establishes policy and guidelines for management of all work assigned to the U.S. Army Corps of Engineers (USACE).
2. **Applicability.** This regulation applies to all USACE activities. This regulation supersedes ER 5-7-1 (FR), Project Management, 30 September 1992. It takes precedence over all other USACE regulations, circulars, directives, letters, memoranda, and operating procedures with respect to program and project management.
3. **References.**
 - a. AR 11-2, Management Control.
 - b. ER 5-1-10, Management, Corps-Wide Areas of Work Responsibility.
 - c. ER 10-1-2, Organization and Functions, U.S. Army Corps of Engineers Division and District Offices.
4. **General.**
 - a. It is the policy of USACE to apply the project management business process as defined herein to all work. Project management is the USACE business process by which products and services are delivered to customers. To accomplish this, each element of the Corps must be organized in accordance with the project management business process.
 - b. Project Management must have outstanding leadership and teamwork to provide the direction and flexibility needed for satisfying customer expectations. Outstanding leadership facilitates the synergistic integration needed for successful delivery of services and teamwork broadens the base of knowledge needed for excellent planning and execution.

**APPENDIX E - PROGRAM and PROJECT MANAGEMENT DRAFT ENGINEER
REGULATION (ER) (continued)**

ER5-1-11
31 Dec 97**

c. The USACE project management business process consists of two major components: the management of individual projects, i.e., project management; and the oversight of a group of similar projects, i.e., program management. These components and their relationship are further defined below.

5. Definitions.

a. Project - is any work (products, services, etc.) that USACE is providing for a customer (internal and external).

b. Program - is a group of projects that may be categorized by funding source, customer requirements or other common criteria for which resources (dollars, manpower, etc.) are allocated and collectively managed.

c. Project Management - is the business process used by USACE for delivering products or services to our customers. The project management business process embodies centralized management, leadership, teamwork, and primary accountability for the life-cycle (cradle-to-grave, including the warranty) of a project. Project management reflects HQUSACE corporate commitment to provide services to customers that are seamless, flexible, effective, efficient, and focuses on customers' expectations, participation, and satisfaction.

d. Program Management - is the development, management and execution of similar projects within available resources (dollars, manpower, etc.). It includes accountability and measuring performance. It requires the comprehensive integration and consolidation of similar projects into specific programs or categories as necessary to ensure all resources are allocated in accordance with applicable laws, Administration policies, and regulations.

6. Program and Project Management Relationship.

a. Project management is the keystone of USACE's operations; it is the basic building block for program management. Program and project management are separate and distinct, however, they are integral to one another. Throughout its life cycle a project encounters many changes. These changes affect the project and the program of which they are a part. Changes in program requirements can affect individual projects within that program; therefore, projects and programs share a unique interdependent relationship. The principles and requirements defined in the project management business process apply to both program and project management because of this integrated nature.

**APPENDIX E - PROGRAM and PROJECT MANAGEMENT DRAFT ENGINEER
REGULATION (ER) (continued)**

ER 5-1-11
31 Dec 97**

b. Project management is normally performed at the USACE execution level (i.e., districts, FOA's, and laboratories, etc.). Program management is normally performed at levels above the district/execution level (i.e., MSC's, HQUSACE, etc.). This structure allows each management level to concentrate on issues/concerns of importance to the customer. Details on organizations and their functions can be found in ER 10-1-2 referenced above.

7. Project Management Business Process (PMBP).

a. Goals and Objectives. The objective of the PMBP is to provide "one-stop shopping" for the customer that focuses on the successful completion and delivery of quality products or services to customers within established budget and schedule. This objective is realized through establishment of a single functional element within each Corps office with these responsibilities. This functional element provides professional and accountable leadership to a multi-disciplined team of professionals dedicated to the following goals:

(1). Meet Customer's Expectations. The key to meeting customer expectations is to deliver quality projects within established budget, scope, and schedules while integrating customers into the project delivery process. The customer should be aware of all financing, policy, and other project constraints and their views fully understood throughout the process.

(2). Develop Best Project Delivery Team. A multi-disciplined team composed of the necessary skills and talents will assure that the products are technically proficient and completed in a cost-effective manner.

(3). Strengthen Corporate Commitment. Project delivery should be the central focus of USACE senior leadership. Each USACE level must ensure a total corporate commitment in support of project priorities, and provide the necessary resources and fortitude, to meet organizational commitments made to customers. This is even more important as we strive to leverage teamwork by using all available organizational resources and strengths within USACE to provide seamless support to customers.

(4). Centralize Management. Consolidated management of all work in the Programs and Project Management (PPM) organization provides the Commander with one central location for quality programmatic information so appropriate corporate decisions can be rendered effectively and efficiently in a timely manner.

(5). Vested Leadership in a single individual--Project Manager (PM). The PM must be the project team leader and primary interface with the customer. This person acts as the customer's

**APPENDIX E - PROGRAM AND PROJECT MANAGEMENT DRAFT ENGINEER
REGULATION (ER) (continued)**

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31 Dec 97**

representative to ensure requirements are conveyed, understood, and met. The PM, who is an extension of the Commander, ensures that we speak with one voice by providing horizontal integration (internal coordination) in all matters relating to the project.

b. Principles. These tenets provide the overarching framework for the PMBP and must be applied to all USACE projects and programs for success. They do not prescribe how project management is to be done but reflect why it is being applied. All applications of PMBP shall be consistent with these basic rules. The principles of PMBP are grouped into four basic categories: Leadership, Teamwork, Customer Service, and Corporate Success.

(1). Leadership:

(a). Principle #1: One Manager - The Project Manager (PM). To meet the demands of customer service and corporate success, the management of each project must be placed in the hands of a single individual--the Project Manager. This individual is the primary representative of the Commander and is empowered, through the Deputy District Engineer for Programs and Project Management [DDE(PPM)], to speak for the Commander. The PM has the authority to make district commitments and respond promptly to customers and all other elements in support of projects.

(b). Principle #2: Central Project Control. To effectively and efficiently deliver quality products and services, on time and within budget, the PM must control the project resources (people and dollars) planned and budgeted. The PM not only leads the team, but is also responsible for directing it to ensure the products and services of the team meet the quality, expectations, and cost/schedule commitments made to the customer. All work performed must be in compliance with applicable laws, Administration policies, regulations, and customer requirements.

(c). Principle #3: Program Management. Each project must be subject to the oversight of program management. Program controls optimize corporate and customer resources and allow for across-the-board incorporation of lessons learned on similar initiatives.

(2). Teamwork:

(a). Principle #4: "One Door to the Corps". USACE must be a virtual organization that acts in unison to draw on our strengths. To make USACE a more responsive organization to customers, the PPM organization at all levels must develop the necessary teamwork to establish universal linkages that will facilitate seamless customer service. The customer must be able to go to the PM and find out everything they need/want to know about their project regardless of where the work is being performed. To accommodate this, all work performed outside assigned geographical

**APPENDIX E - PROGRAM and PROJECT MANAGEMENT DRAFT ENGINEER
REGULATION (ER) (continued)**

ER 5-1-11

31 Dec 97 **

or functional responsibilities must be conducted in accordance with ER 5-1-10 referenced above.

(b). Principle #5: Horizontal Integration. Cross-functional teams, under the leadership of the PM, shall strive in concert to deliver projects that are consistent with customer expectations and corporate needs. Each member of the project team must keep their respective organization element informed at all times, especially of high priority or sensitive project issues. The PM, as the integrator for the Commander, shall ensure the direction and efforts of the team are unified, focused, and coordinated, speaking with one corporate voice.

(3). Customer Service:

(a). Principle #6: Customer Care. The PM is the USACE's primary point of contact with the customer and shall ensure that the customer understands the PMBP, that USACE understands the customer's expectations, and that an effective and continuous interface is established and maintained. The project team, particularly the PM, shall place the highest priority on customer relationships, communications, service and satisfaction throughout the life of the project.

(b). Principle #7: Flexible Management. The extent of controls placed on the management of each project shall be developed and deployed consistent with the risks (sensitivity, complexity, uncertainty, etc.) and tailored to meet customer requirements. This ensures efficient use of program resources.

(4). Corporate Success.

(a). Principle #8: Best Business Practices. The project team shall use state-of-the-art techniques and tools to continuously improve customer service. Applying lessons learned and sharing them throughout the Corps facilitates efficient execution and allows us to capitalize on opportunities for making USACE a virtual organization.

(b). Principle #9: Plan & Assess Performance. The measurement of performance and control of changes is an iterative process necessary to deliver projects within established baselines and customer expectations. All work managed by USACE must be planned up-front (scoping, scheduling, budgeting, assigning accountability and responsibility) and executed through the use of a management plan to assure project success.

c. Requirements. These basic elements guide users of the PMBP to perform work consistent with the principles. Their successful implementation requires the concerted efforts of the project team. These requirements are grouped into three basic categories: Organize the Work, Plan the Work, and

**APPENDIX E - PROGRAM and PROJECT MANAGEMENT DRAFT ENGINEER
REGULATION (ER) (continued)**

ER 5-1-11
31 Dec 97**

Manage Work Performance.

(1) Organize the Work:

(a). Requirement #1: Centralize Management. All new projects shall be accepted for the Commander by Programs and Project Management organization. It is mandatory that all projects come under program management oversight. This provides a single location for easy access to project and program information.

(b). Requirement #2: Assign Project Manager. On behalf of the Commander, a PM is assigned to a project as soon as the work is accepted. The PM shall remain with the project as long as it is a USACE responsibility to ensure project continuity and customer service.

(c). Requirement #3: Identify Team Members. A project team shall be formed early to facilitate the planning necessary to identify the resources required to successfully accomplish the work. The project team shall be identified consisting of the customer, the PM, and appropriate technical/functional members necessary to execute the project.

(2). Plan the Work:

(a). Requirement #4: Manage by a Plan. A document for each project, which details how the work will be executed and how the resources will be expended, shall be developed and maintained by the PM together with the customer and the other members of the project team. The plan must be developed as soon as the customer's requirements become known and maintained at a level of detail commensurate with the size and complexity of the project. It is a living, working level document that records the history of the project and depicts the future direction of the project. The plan is a contract among all elements supporting the project. It documents all commitments (including the customer's) and assumptions necessary for project execution. It defines the baseline scope, schedule, resources (dollars and manpower), including contingencies, and provides a configuration management plan for the project. It shall consider all project requirements including real estate, planning, design, engineering, construction and other types of work whether performed by USACE, customer, or by contract. The plan and all subsequent changes must be endorsed by the customer and approved by the Project Review Board.

(b). Requirement #5: Use Corporate Management Tools. The management and control of each project shall be assisted through the use of automated corporate project and financial management tools. These tools provide the capability for assessing planned and actual performance, and forecasting potential events.

**APPENDIX E - PROGRAM and PROJECT MANAGEMENT DRAFT ENGINEER
REGULATION (ER) (continued)**

ER 5-1-11
31 Dec 97**

(3). Manage Work Performance:

(a). Requirement #6: Assess Performance. Projects shall be periodically evaluated by the project team against the baseline requirements (budgets and schedules) contained in the management plan. In the continual assessment of project performance, the PM has the responsibility to challenge work in progress, identify variances and evaluate alternatives. Customer feedback shall be institutionalized through customer based performance measures.

(b). Requirement #7: Manage to the Baseline. The project team's focus for meeting project execution goals is to maintain the baseline (scope, schedules or costs) requirements in the management plan. Controls must be in place to facilitate timely corrective actions to ensure that changes do not exceed performance thresholds or limitations established by laws, Administration policy or regulations. Anticipated changes to product resource requirements in the management plan shall be approved by the PM if within their overall project contingency authority. Changes during project execution beyond the PM's contingency authority shall be managed corporately within the goal of maintaining or improving the baseline. The PM is responsible for making the necessary adjustment to the management plan, coordinating them, and getting the proper approvals.

(c). Requirement # 8: Maintain Fiscal Responsibilities. Project financial responsibilities are a shared team effort that require all project team members to be responsive in meeting commitments in a timely manner. These responsibilities include, but are not limited to, maintaining fiscal integrity, receipt and management of customer funds, funds control, liquidation of obligations, labor transfers, construction-in-progress (CIP) transfers, project audits and close-outs, and timely return of any savings.

(d). Requirement # 9: Perform Management Reviews. Project/ Program Review Boards (PRBs) shall be held periodically to keep senior management informed of project/program status, address issues from a customer and corporate perspective, and assess performance based on results oriented measurements.

(e). Requirement # 10: Document, Share and Use Lessons Learned. Evaluating our performance produces opportunities to further improve our business processes, in terms of project execution, productivity, cost effectiveness, streamlined processes, timeliness, quality standards, and customer service. Project experiences shall be documented to share and apply what has been learned.

8. Process Assessment.

**APPENDIX E - PROGRAM AND PROJECT MANAGEMENT DRAFT ENGINEER
REGULATION (ER) (continued)**

ER 5-1-11
31 Dec 97**

- a. Initiatives to improve program performance are encouraged. Guidance contained in this regulation provides MSC Commanders and Directors opportunities to leverage the total USACE as an organization to provide seamless support to all of our customers. Information technology and leveraging Corps research and development capabilities allows USACE to organize and deliver its products and services in innovative, cost efficient ways.
- b. Program Management at HQUSACE embodies five major functions: leadership, resourcing, development of training strategy and programs, equipping and empowering, and evaluations of trends and performance. HQUSACE continually assesses the policies and directions set forth herein and periodically reviews MSC implementation of the USACE PMBP to evaluate the effectiveness of their quality assurance, efficiency, and execution.
- c. Major Subordinate Commands (MSC's) shall establish and maintain documented procedures to enable flexible but consistent implementation of this regulation through Program Review Boards and periodic site visits. Directorate of Programs Management quality assurance reviews of the USACE PMBP are necessary to assure the performance effectiveness of their execution level organizations.
- d. Execution level organizations (i.e., districts, FOA's, Labs, etc.) shall periodically assess their project management processes and practices to ensure implementation of this regulation through the Project Review Board and other quality control processes.

9. **Management Control Evaluation Checklists**. Management controls, like quality controls, are the responsibility of the District Commander. The MSC's should provide oversight and quality assurance for districts. Management control checklists for the project management business process are provided in Appendix A. The Programs and Project Management organization in each district is responsible for completing the checklist at A-1; and the Directorate of Programs Management at the MSC is responsible for the checklist at A-2. No upward reporting is required. If a management weakness requires the awareness of the next higher level of management, it is a "material weakness." Material weaknesses discovered by the district are reported to the Directorate of Programs Management, which determines whether they need to be reported to the appropriate Programs Management Division at HQUSACE. The report must specify corrective actions taken or planned. The highest echelon receiving the report shall evaluate the corrective actions, provide assistance, if needed, and track progress. Consult AR 11-2 for help in determining whether a weakness is "material."

HQ CIVIL WORKS ENGINEERING NOTES - Vol. III No. 2 - 5 November 1997 (continued)

**APPENDIX E - PROGRAM AND PROJECT MANAGEMENT DRAFT ENGINEER
REGULATION (ER) (continued)**

ER 5-1-11
31 Dec 97**

FOR THE COMMANDER:

OTIS WILLIAMS
Colonel, Corps of Engineers
Chief of Staff

Appendix A

Management Control Evaluation Checklists:

Appendix A-1. District Checklist

Appendix A-2. MSC Checklist

**APPENDIX E - PROGRAM and PROJECT MANAGEMENT DRAFT ENGINEER
REGULATION (ER) (continued)**

ER 5-1-11
31 Dec 97**

APPENDIX A
MANAGEMENT CONTROL EVALUATION CHECKLISTS

Appendix A-1. District Checklist

FUNCTION. The function covered by this checklist is USACE Program and Project Management.

PURPOSE. The purpose of this checklist is to assist programs and project management organizations in USACE districts in evaluating key management controls in the management of the project management business process. It is not intended to cover all controls.

INSTRUCTIONS. Become thoroughly familiar with the contents of the Program and Project Management ER and read paragraph 9 before completing the checklist. Answers must be based on actual testing of key management controls (e.g., document analysis, observation, sampling, simulation, etc.). Answers which indicate deficiencies must be explained and corrective actions indicated in supporting documentation. These management controls must be evaluated at least once every five years. Certification that this evaluation has been conducted must be accomplished on DA Form 11-2-R.

TEST QUESTIONS:

1. **Leadership:** (a). Is the management of each project in the hands of the Project Manager?

Response: YES_____ NO_____ NA_____ Remarks:

(b). Are controls in place to ensure compliance with applicable laws, Administration policies, and regulations?

Response: YES_____ NO_____ NA_____ Remarks:

(c). Are all projects subject to the oversight of program management?

Response: YES_____ NO_____ NA_____ Remarks:

2. **Teamwork:** (a). Are cross-functional teams delivering projects consistent with customer expectations and corporate needs?

Response: YES_____ NO_____ NA_____ Remarks:

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3. **Customer Service:** (a). Do we ensure that the customer understands the project management business process?

Response: YES_____ NO_____ NA_____ Remarks:

(b). Is an effective and continuous interface with the customer established and maintained?

Response: YES_____ NO_____ NA_____ Remarks:

(c). Are management controls for each project scoped and scaled consistent with the risks and tailored to customer needs and requirements?

Response: YES_____ NO_____ NA_____ Remarks:

4. **Corporate Success:** (a). Does the project team use state-of-the-art techniques and tools?

Response: YES_____ NO_____ NA_____ Remarks:

(b). Is all work planned up-front and executed through the use of a management plan?

Response: YES_____ NO_____ NA_____ Remarks:

5. **Organize the Work:** (a). Are all new projects accepted by Programs and Project Management organization?

Response: YES_____ NO_____ NA_____ Remarks:

(b). Is the PM assigned to the project for the duration of USACE responsibility?

Response: YES_____ NO_____ NA_____ Remarks:

(c). Does the project team include the customer and appropriate technical and functional members to plan and execute the project?

Response: YES_____ NO_____ NA_____ Remarks:

6. **Plan the Work:** Is a management plan for each project:

(a). Developed and maintained by the Project Team under the leadership of the PM?

Response: YES_____ NO_____ NA_____ Remarks:

(b). At a level of detail commensurate with the size and complexity of the project?

Response: YES_____ NO_____ NA_____ Remarks:

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(c). Endorsed by the customer and approved by the Project Review Board?

Response: YES_____ NO_____ NA_____ Remarks:

(d). Assisted through the use of automated corporate project and financial management tools?

Response: YES_____ NO_____ NA_____ Remarks:

7. **Manage Work:** (a). Is performance periodically evaluated by the project team?

Response: YES_____ NO_____ NA_____ Remarks:

(b). Does the PM have the authority to challenge work in progress?

Response: YES_____ NO_____ NA_____ Remarks:

(c). Are variances to the management plan identified and alternatives evaluated in a timely manner?

Response: YES_____ NO_____ NA_____ Remarks:

(d). Is customer feedback institutionalized through customer-based performance measures?

Response: YES_____ NO_____ NA_____ Remarks:

(e). Are controls in place to facilitate timely corrective actions?

Response: YES_____ NO_____ NA_____ Remarks:

(f). Are changes in resource requirements that exceed the management plan approved by the PM?

Response: YES_____ NO_____ NA_____ Remarks:

(g). Are financial commitments met in a timely manner?

Response: YES_____ NO_____ NA_____ Remarks:

(h). Does the Project Review Board (PRB):

- Provide senior management with an informed project/program status?

Response: YES_____ NO_____ NA_____ Remarks:

- Address issues from a customer and corporate perspective?

Response: YES_____ NO_____ NA_____ Remarks:

- Assess performance based on results oriented measurements?

Response: YES_____ NO_____ NA_____ Remarks:

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**APPENDIX E - PROGRAM AND PROJECT MANAGEMENT DRAFT ENGINEER
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(i). Are project experiences documented to share and apply what has been learned?

Response: YES_____ NO_____ NA_____ Remarks:

8. **Process Assessment:** (a). Are initiatives to improve program performance encouraged?

Response: YES_____ NO_____ NA_____ Remarks:

(b). Do execution level organizations periodically assess their project management processes and practices?

Response: YES_____ NO_____ NA_____ Remarks:

[NOTE: Help make this a better tool for evaluating management controls. Submit suggestions for improvement to HQUSACE (CECW-BD or CEMP-MP), Washington, D.C. 20314-1000.]

**APPENDIX E - PROGRAM and PROJECT MANAGEMENT DRAFT ENGINEER
REGULATION (ER) (continued)**

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APPENDIX A
MANAGEMENT CONTROL EVALUATION CHECKLIST

Appendix A-2. MSC Checklist

FUNCTION. The function covered by this checklist is USACE Program and Project Management.

PURPOSE. The purpose of this checklist is to assist Directorates of Programs Management in USACE Major Subordinate Commands (MSC) in evaluating key management controls in the management of the project management business process. It is not intended to cover all controls.

INSTRUCTIONS. Become thoroughly familiar with the contents of the Program and Project Management ER and read paragraph 9 before completing the checklist. Answers must be based on actual testing of key management controls (e.g., document analysis, observation, sampling, simulation, etc.). Answers which indicate deficiencies must be explained and corrective actions indicated in supporting documentation. These management controls must be evaluated at least once every five years. Certification that this evaluation has been conducted must be accomplished on DA Form 11-2-R.

MSC TEST QUESTIONS:

1. Leadership: (a). Are controls in place to ensure compliance with applicable laws, Administration policies, and regulations? .

Response: YES_____ NO_____ NA_____ Remarks:

(b). Are all projects subject to the oversight of program management?

Response: YES_____ NO_____ NA_____ Remarks:

2. Teamwork: (a). Is customer access throughout the MSC seamless?

Response: YES_____ NO_____ NA_____ Remarks:

(b). Does the MSC operate as a virtual organization that utilizes all available USACE resources?

Response: YES_____ NO_____ NA_____ Remarks:

(c). Are cross-functional teams in the districts delivering projects consistent with customer expectations and corporate needs?

Response: YES_____ NO_____ NA_____ Remarks:

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3. Corporate Success: (a). Does the MSC assure use of state-of-the-art techniques and tools?

Response: YES_____ NO_____ NA_____ Remarks:

4. Manage Performance: (a). Is customer feedback institutionalized through customer based performance measures?

Response: YES_____ NO_____ NA_____ Remarks:

(b). Are fiscal commitments met in a timely manner?

Response: YES_____ NO_____ NA_____ Remarks:

(c). Does the Program Review Board (PRB):

- Provide senior management with an informed project/program status?

Response: YES_____ NO_____ NA_____ Remarks:

- Address issues from a customer and corporate perspective?

Response: YES_____ NO_____ NA_____ Remarks:

- Assess performance based on results oriented measurements?

Response: YES_____ NO_____ NA_____ Remarks:

(d). Are project experiences documented to share and apply what has been learned?

Response: YES_____ NO_____ NA_____ Remarks:

5. Process Assessment: (a). Are initiatives to improve program performance encouraged?

Response: YES_____ NO_____ NA_____ Remarks:

(b). Has the Major Subordinate Command (MSC) established documented procedures to implement this regulation through the Program Review Board and periodic site visits?

Response: YES_____ NO_____ NA_____ Remarks:

(c). Do execution level organizations periodically assess their project management business processes and practices?

Response: YES_____ NO_____ NA_____ Remarks:

[NOTE: Help make this a better tool for evaluating management controls. Submit suggestions for improvement to HQUSACE (CECW-BD or CEMP-MP), Washington, D.C. 20314-1000.]

APPENDIX F
INTERAGENCY COMMITTEE ON DAM SAFETY SUBCOMMITTEES (ICODS)

The charters for all of the ICODS subcommittees were revised this year and approved by ICODS. The operating rules for all of the subcommittees will be in accordance with the operating rules submitted to the *Federal Register* for ICODS. In addition, each subcommittee will submit On Usual report to ICODS (in October of each year) documenting its activities, accomplishments, Old expenditures The ICODS subcommittees Ore described below.

Operations Subcommittee: The Operations Subcommittee provides ICODS with recommendations for program activities and direction and reviews and evaluates current activities undertaken on behalf of ICODS member agencies. The duties of the Subcommittee are to:

Develop proposed program undertakings for annual presentations to ICODS during the regular April meeting and to propose a funding target for member agency contributions; and

Review ICODS program activities performed by FEMA and provide ICODS with a periodic report on the progress and effectiveness of the activities, including recommendations to improve delivery of program services.

The membership of the Subcommittee consists of three Federal agency representatives to ICODS, none of whom may be an employee of FEMA. The Subcommittee meets on a quarterly basis.

Dam Safety Research Subcommittee: The Dam Safety Research Subcommittee provides the forum for representing the dam safety research needs of the ICODS member agencies and States; prioritizes research needs; and advises ICODS of the needs and priorities. The Subcommittee also addresses the mechanisms by which to facilitate information exchange among Federal and State dam safety agencies and encourage coordination of individual agency, private sector, and State research activities. The Subcommittee focuses on meeting the requirements of Section 9 of Public Law 104-303, which requires that "FEMA, in cooperation with ICODS, shall carry out a program of technical and archival research to develop (1) improved techniques, historical experience, and equipment for rapid and effective dam construction, rehabilitation, and inspection; and (2) devices for the continued monitoring of the safety of dams."

The Subcommittee assesses and prioritizes research needs through the regular and periodic survey of Federal and State research activities. When possible, the Subcommittee uses ASDSO as a resource in data collection.

The membership of the Subcommittee consists of three representatives from ICODS; three representatives from the Association of State Dam Safety Officials (ASDSO); one representative from the ASDSO Affiliate Committee; and other representatives from organizations approved by ICODS, such as the Electric Power Research Institute, the National Science Foundation, the United

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APPENDIX F - Interagency Committee on Dam Safety Subcommittees (ICODS) (continued)

States Committee on Large Dams (USCOLD), and the American Society of Civil Engineers (ASCE). The Subcommittee meets at least twice each year.

Dam Safety Training Subcommittee: The mission of the Dam Safety Training Subcommittee is to establish, develop, and maintain a training program for Federal and State dam safety agency personnel sufficient to meet (1) training requirements for State dam safety agencies in accordance with the requirements of the Program; and (2) Federal dam safety training requirements.

Through its activities, the Subcommittee meets the requirements of Section 8(g) of Public Law 104-303, which states that "At the request of any State that has or intends to develop a State dam safety program, the Director (of FEMA) shall provide training for dam safety staff and inspectors. "Section 12 of Public Law 104-303 authorizes the appropriation of \$500,000 for each fiscal year 1998 through 2002 to carry out State dam safety training.

The activities of the Subcommittee include the following:

Review the content of existing Federal and State dam safety training opportunities with the goal of maximizing technical and monetary resources. Included in this review will be the Training Aids for Dam Safety (TADS) program materials;

Define appropriate dam safety training programs through surveys of Federal and State programs. Identify the various subject areas needed for Federal and State dam safety training programs;

Make recommendations regarding the use of the TADS program in agency training programs, and the need to revise and supplement TADS;

Develop plans and schedules for Federal and State dam safety training programs;

Develop costs associated with each Federal and State training activity;

Develop and submit recommendations for Federal and State dam safety training courses to FEMA through ICODS;

Identify potential instructors for Federal and State training courses; and

Provide training opportunities for Federal and State dam safety engineers and staff.

The membership of the Subcommittee consists of three representatives from ICODS; three representatives from ASDSO; one representative from FEMA; one representative from USCOLD; and one representative from the ASCE. The Subcommittee meets at least twice each year.

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APPENDIX F - Interagency Committee on Dam Safety Subcommittees (ICODS) (continued)

National Inventory of Dams Subcommittee: The first national inventory of dams was initiated by the United States Army Corps of Engineers (USACE) in 1975. In 1986, Congress authorized the USACE to maintain and periodically publish updated information on the inventory of dams. Using computers, the update methodology allows government agencies to electronically transfer information from their local inventory system to a central computer at FEMA Headquarters. The improvement of the data in the inventory database, and at the individual agency level, is an ongoing process. Today, 67 States, territories, and Federal agencies participate in the update process of the National Inventory of Dams (NID). Public Law 104-303 specifically provides that the Secretary of the Army, acting through the Chief of Engineers, will maintain and periodically publish updated information on the inventory of dams in the United States.

The National Inventory of Dams Subcommittee provides guidance and recommendations concerning the data elements, format, and publication media for the NID. This is achieved through coordination and information exchange among agencies and other organizations sharing common problems and responsibilities for any aspect of dam safety requiring an inventory of dams.

The Subcommittee provides a permanent work group for these organizations to advise the Chief of Engineers, through ICODS, on the NID and to make recommendations on institutional, managerial, technical, legislative, and policy issues which affect the NID.

The membership of the Subcommittee consists of three representatives from ICODS; three representatives from ASDSO; and one representative from the USACE. The member appointed by the Chief of Engineers serves as the Chair of the Subcommittee. The Subcommittee meets on an as-needed basis.

Guidelines Development Subcommittee: ICODS has developed the following technical Guidelines.

The Emergency Action Planning Guidelines for Dams

The Federal Guidelines for Selecting and Accommodating Inflow Design Floods for Dams

The Federal Guidelines for Earthquake Analysis and Design for Dams

The publications listed above are based on the most up-to-date research studies and experience available, and provide authoritative statements on the state of the art for three important technical areas involving dam safety. ICODS also has developed a Glossary of Terms to assist users of the Guidelines.

The maintenance and update of these publications and establishment of additional guidelines will help

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APPENDIX F - Interagency Committee on Dam Safety Subcommittees (ICODS) (continued)

achieve two of the objectives of the Program: to "encourage acceptable engineering policies and procedures to be used for dam site investigation, design, construction, operation and maintenance, and emergency preparedness" and to "develop technical assistance materials for Federal and non-Federal dam safety programs."

The membership of the Guidelines Development Subcommittee consists of four representatives from ICODES; three representatives from ASDSO; and one representative from USCOLD. The Subcommittee meets quarterly, either electronically via teleconference or at locations convenient to Subcommittee members.

National Dam Safety Coordination Subcommittee: Approximately 95 percent of the dams in the United States are regulated by the States and are owned by local governments, communities, corporations, and by individuals. The mission of the National Dam Safety Coordination Subcommittee is to coordinate and facilitate communication among groups having varied interests in dams and dam safety, and using the strengths and expertise of Federal, State, and private individuals, to develop guidance documents and policies related to dam safety. The Subcommittee takes steps to enhance communication between Federal, State, local, and private dam safety interests, and serves as the vehicle for the submission of dam safety issues to ICODES.

The membership of the Subcommittee includes three representatives from ICODES; one representative from FEMA; three representatives from ASDSO; one representative from the ASDSO Affiliate Committee; and one representative from USCOLD. The Subcommittee meets at least twice each year.